

AMENDMENTS TO THE SPECIFICATION

Please replace Paragraph [0017] with the following paragraph rewritten in amendment format:

[0017] The transparent window skin panel 10 is preferably lap spliced to the skin 13 (Figure 1) of the aircraft 12. This lap splice (not shown) results in a high strength coupling wherein the transparent window skin panel 10 is mechanically fastened to an adjacent skin panel (~~not shown~~) of the aircraft skin 14.

Please replace Paragraph [0019] with the following paragraph rewritten in amendment format:

[0019] **[[A]]** The plurality of metal sheets 28 and a plurality of fiber pre-impregnated tapes (~~pre-peg~~ pre-preg tapes) 30 are then provided. Each metal sheet 28 includes a plurality of openings 34 formed therethrough. The openings 34 in each metal sheet 28 correspond to one of the windows 16 of the assembled transparent window skin panel 10. Again, while the openings 34 (and therefore the windows 16) are illustrated as rectangular, it is to be understood that any shape may be employed.

Please replace Paragraphs [0021]-[0026] with the following paragraphs rewritten in amendment format:

[0021] The ~~pre-peg~~ pre-preg tapes 30 each include a plurality of fibers 36 impressed and impregnated in a resin film 38 (also seen in Figure 2). The orientation of the fibers 36 is based on the desired directional strength of the resulting structure and may have unidirectional or bi-directional strength (e.g., the fibers **[[34]]** 36 may run either in one direction or a plurality of directions). Preferably, the fibers **[[34]]** 36 are

comprised of fiberglass having a rectangular cross section, although any number of suitable fiber materials and shapes may be employed.

[0022] The resin 38 is preferably an aliphatic epoxy resin although various other resins that are generally transparent when fully cured may be employed. Moreover, the resin 38 is transparent. The ~~pre-peg~~ pre-preg tapes 30 are preferably about 1/8" (3.175 mm) to about 12" wide (304.8 mm), although any sized tape may be employed.

[0023] The metal sheets 28 and the ~~pre-peg~~ pre-preg tapes 30 are then laid atop the tool 24 in an order corresponding to the desired order of lamina in the transparent window skin panel 10. In the particular example provided, the metal sheets **[[28]]** 20 alternate with double layers of the ~~pre-peg~~ pre-preg tape 30.

[0024] A flexible caul plate 40 (illustrated schematically in Figure 3) is then closed onto the components. A vacuum bag 42 is then used to seal the tool 24, the ~~pre-peg~~ pre-preg tape 30, and the metal sheets 28 and the air removed under suction. Finally, the components are placed in an autoclave 44 (illustrated schematically in Figure 3).

[0025] The components are heated to preferably approximately 350 degrees Fahrenheit under a pressure of approximately 100 to 200 psi. However, it is to be understood that other temperatures and pressures may be employed. Within the autoclave, the resin 38 melts and flows through the fibers 36 thereby fully wetting (e.g. fully covering and saturating) the fibers 36 and metal sheets 28. The transparent window skin panel 10 is then cured over a period of time until the resin **[[36]]** 38 hardens. The components are then removed from the autoclave 44, vacuum bag 42,

and the tool 24 and caul plate 40 and the transparent window skin panel 10 removed. The metal sheets 28 correspond to the metal sheets 20 within the frame 14 (Figure 2) and the resin 38 and fibers 36 make up the fiber reinforced resin 22 (Figure 2).

[0026] As noted above, the window 16 (Figures 1 and 2) is transparent. To impart transparency, the resin 38 is transparent and the fibers **[[34]] 36** have a index of refraction such that they are substantially transparent within the transparent window skin panel 10. The index of refraction of the fibers 36 is matched to the index of refraction of the resin 38. In this way, the transparent window skin panel 10 is fully transparent in the areas of the openings 34 in the metal sheets 28.